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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/509,960

07/29/2005

Hans-Olof Backlund

GROTH 3.3-037

1028

530 7590 03/16/2007
LERNER, DAVID, LITTENBERG,
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EXAMINER

DAVIS, OCTAVIA L

ART UNIT

PAPER NUMBER

2855

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/509,960

Applicant(s)

BACKLUND, HANS-OLOF

Examiner

Octavia Davis

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 16-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/4/04 (Figs. 1 - 6) is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/4/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Acknowledgment is made of applicant's preliminary amendment filed 10/4/04.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Be-* 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thonngton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b). 3.

Claims 16 – 30 are rejected on the ground of non-statutory obviousness-type double

Art Unit: 2855

patenting as being unpatentable over claims 1 – 23 of U.S. Patent No. 6,915,711.

Regarding claims 16 and 21, although the conflicting claims are not identical they are not patentably distinct from each other because all of the limitations in the claims are included in the 6,915,711 patent.

Regarding claims 17 and 24, it would have been obvious to one of ordinary skill in the art at the time the invention was made to measure both the perpendicular forces and the force exerted by fiber pressure in order to obtain displacements of the measuring surface to facilitate sealing the device from the surrounding environment.

Regarding claims 18 – 20, 25 and 26, it would have been obvious to one of ordinary skill in the art at the time the invention was made to compensate for the force by determining the temperature of the steam to provide a device that is extremely rigid.

Regarding claim 22, the stress measuring means is removably disposed in said at least one refining surface perpendicular to said measuring surface and said stress measuring members comprise at least a pair of force sensors and a first body connecting said at least a pair of force sensors to said measuring surface (See claim 6 of Backlund et al).

Regarding claim 23, the force sensors are disposed to provide counter-directed readings when said measuring surface is influenced by a stress force (See claim 23 of Backlund et al).

Regarding claim 27, pressure equalizing means influences the stress measuring means from both the direction of the measuring surface and the opposite direction (See claim 7 of Backlund et al).

Regarding claim 28, the force sensors are plate shaped (See claim 19 of Backlund et al).

Regarding claim 29, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate strain gauges since these type of transducers are used in bar

Art Unit: 2855

experiments.

Regarding claim 30, the force sensors comprise piezoelectric transducers (See claim 11 of Backlund et al).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16 – 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Johansson (6,587,803).

Regarding claims 16 and 21, Johansson discloses a refiner measurement system and method comprising a pair of refining discs 32 juxtaposed with each other and forming a refining gap (See Col. 6, lines 46 – 52) for refining material therebetween, said pair of refining discs including at least one refining surface 75 including a plurality of bars 48 for refining said material within said refining gap, said at least one refining surface including a measuring surface 74 comprising a predetermined portion of said at least one refining surface including at least a portion of at least a pair of said plurality of bars 48, means for resiliently mounting the measuring surface in the refining surface and measuring the stress forces directed perpendicular to the measuring surfaces with stress sensors 78, 80, 82, 84, 86, 88, 90 92 (See Col. 7, lines 5 – 20, 39 – 41 and 51 – 65).

Regarding claims 17 and 18, said measuring comprises measuring both said perpendicular

Art Unit: 2855

forces comprising the force exerted by steam pressure at said measuring surface 74 and the force exerted by fiber pressure from said refining material 10, measuring only said force exerted perpendicular to said measuring surface by fiber pressure from said refining material and compensating for the force exerted by steam pressure at said measuring surface (See Col. 10, lines 26 – 40).

Regarding claim 19, said compensating includes measuring the temperature of said steam at said measuring surface and calculating the force exerted by said steam pressure at said measuring surface based on said measured steam temperature (See Col. 12, lines 1 – 23).

Regarding claim 20, said measuring comprises disposing force sensors 78, 80, 82, 84, 86, 88, 90 and 92 in connection with the measuring surface 74 and permitting the steam pressure to influence the force sensors in both the direction of the measuring surface and the opposite direction to thereby compensate for the steam pressure (See Col. 12, lines 9 – 20 and 24 – 38).

Regarding claim 22, said stress measuring means is removably disposed in said at least one refining surface 75 perpendicular to said measuring surface and said stress measuring members 78, 80, 82, 84, 86, 88, 90 92 comprise at least a pair of force sensors and a first body 118 connecting said at least a pair of force sensors to said measuring surface (See Col. 7, lines 60 – 66 and Col. 8, lines 30 – 37).

Regarding claim 23, the force sensors 78, 80, 82, 84, 86, 88, 90 92 are disposed to provide counter-directed readings when the measuring surface is influenced by a stress force (See Col. 17, lines 15 – 26).

Regarding claim 24, said stress measuring members 78, 80, 82, 84, 86, 88, 90 92 are disposed to measure perpendicular force exerted by both steam pressure at measuring surface and the fiber pressure exerted by refining material (See Col. 10, lines 26 – 41).

Art Unit: 2855

Regarding claim 25, the stress measuring members 78, 80, 82, 84, 86, 88, 90 92 are disposed to measure the perpendicular force exerted only by the fiber pressure exerted by the refining material and including means for compensating for the steam pressure at the measuring surface (See Col. 10, lines 26 – 41).

Regarding claim 26, the means for compensating comprises temperature measuring means 142 for measuring the temperature of said steam at said measuring surface whereby the steam pressure at said measuring surface can be calculated therefrom (See Col. 12, lines 1 – 23).

Regarding claim 27, pressure equalizing means (calibration) influences said stress measuring means from both the direction of said measuring surface and the opposite direction (See Col. 14, lines 16 – 24).

Regarding claims 28 – 30, the force sensor has a diaphragm construction, is a pressure type sensor and comprises piezoelectric transducers (See Col. 12, lines 24 – 38).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Johansson et al (6,892,973) disclose a refiner disk sensor and sensor refiner disk.

Backlund et al (7,010,988) disclose a method and a device for measuring stress forces in refiners.

Bankes et al (6,840,470) disclose a refiner force sensor.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Octavia Davis whose telephone number is 571-272-2176. The examiner can

Art Unit: 2855

normally be reached on Mon through Thurs from 9 to 5. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz, can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



OD/2855

3/12/07



MICHAEL CYGAN, PH.D.
PRIMARY EXAMINER